Center for American Progress

A *Progressive Growth* Policy Paper

Lifelong Learning

New Strategies for the Education of Working Adults

By Brian Bosworth

December 2007

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LIFELONG LEARNING

New Strategies for the Education of Working Adults

Brian Bosworth
Affiliated Scholar, Center for American Progress

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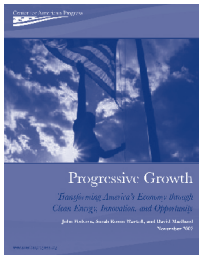
About Progressive Growth



The Center for American Progress offers a fiscally responsible investment plan to:

- *Grow our economy* through the transformation to a low-carbon economy and leadership in innovation, technology, and science.
- *Recreate a ladder of economic mobility* so that Americans may make a better life for themselves and their families, and America may be a land with a thriving and expanding middle class prospering in the global economy.

An overview of the entire plan can be found in:

Progressive Growth
Transforming America's Economy through Clean Energy, Innovation, and Opportunity
By John Podesta, Sarah Rosen Wartell, and David Madland

Other reports detailing aspects of the challenges and recommendations in the *Progressive Growth* plan are:

Capturing the Energy Opportunity
Creating a Low-Carbon Economy
By John Podesta, Todd Stern, and Kit Batten

A National Innovation Agenda
Progressive Policies for Economic Growth and Opportunity through Science and Technology
By Tom Kalil and John Irons

Opportunity and Security for Working Americans
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Other *Progressive Growth* Policy Papers

The Center for American Progress also is publishing *Progressive Growth* Policy Papers, offering new ideas and further detailing ideas included in CAP's *Progressive Growth* plan. ***New Strategies for the Education of Working Adults,*** by Brian Bosworth, is part of this series. The first *Progressive Growth* Policy Paper, ***Serving America: A National Service Agenda for the Next Decade,*** by Shirley Sagawa, was published in September 2007. Future Papers will include: ***Social Entrepreneurship and Impact: Creating a Climate to Foster Social Innovation,*** by Michele Jolin *(forthcoming)*.

Introduction and Summary

The United States has long relied on rising educational attainment in a rapidly growing labor force to help propel our economic growth. Over the last four decades of the 20th century in particular, steady increases in the education level of our labor force contributed very significantly to steady productivity gains, sustained economic growth, and formidable national competitiveness in an increasingly global economy. All those gains are today under threat because of a complex mix of factors that boil down to a single reality—the American workforce is steadily becoming less educated just when better and more diverse educational opportunities are essential for our labor force to maintain its justifiably famous productivity, flexibility and ingenuity.

Unless the United States makes critical adjustments now to its national human capital investment strategies, our education attainment levels will stagnate and future economic growth will slow. Policy changes are necessary to compensate for much slower labor force growth over coming decades, to boost adult worker productivity that can fuel economic growth, and to head off further increases in income inequality that will result if future demand for an educated workforce outstrips the supply.

The labor force, which more than doubled over the past forty years, will grow very slowly between now and 2040. The young cohorts moving through school and then into and through the labor force are much smaller than in the baby boomer years and (reversing the trends of the past four decades) will almost certainly have lower educational attainment than the older groups who will be aging out of the workforce. The demographic factors that worked to our nation's advantage in the past are turning against us in the future.

The upshot: the United States can no longer pursue an education policy that essentially gives up on adults. We must leave no children behind, of course, but future gains in labor force educational attainment will come only as we get much better at educating our working adults.

More than half of America's 120 million workers between the ages of 25 to 64 have no postsecondary degree; in fact, no postsecondary credential of any kind. To put this in perspective, over the next 10 years a total of about 30 million young people will graduate from high school in the U.S. hopefully, many prepared for college—*but there are today twice that many adults already in the workforce who have no postsecondary credentials.*

The adult literacy problem is equally severe. Findings from the 2003 National Assessment of Adult Literacy indicate that 31 million people, or 14 percent of Americans age 16 or

Key Principles and Recommendations

Effective policymaking to promote lifelong learning rests on four key principles and five inter-related and interdependent recommendations

Four Principles

- There is no one-size-fits-all or silver bullet approach to adult education reform
- We must build and shape demand for adult education among less-educated workers and their employers
- The federal government and the states need to work together on adult education
- We need new and improved education technology to deliver instruction, to measure progress, and to test for competency.

Five Recommendations

We need new incentives for employers to invest in the credentialed and portable education of their employees, both for basic skills and postsecondary skills. This paper proposes a new federal initiative to stimulate employer investment in the education of adult workers. Specifically, employers should receive a credit against their federal tax liability amounting to a percentage of their investment in basic education and language training leading to a national recognized certificate of proficiency, and in the credentialed postsecondary education of under-prepared adult workers.

We need stronger incentives for working adults to invest in their own education. This paper proposes a significant expansion of federal tax incentives to encourage individuals to invest in their own basic skills and postsecondary education. Specifically, the effective amount of the Lifetime Learning Tax Credit should be increased significantly to offer greater rewards to individual investment, and it should be made fully refundable for workers at lower earning levels who otherwise would not incur the tax liability to use the credit.

We need better support and assistance for state governments to help their public postsecondary institutions develop educational offerings and degree programs that work for working adults. This paper recommends a time-limited federal program administered through the Higher Education Act to help states encourage their postsecondary institutions to develop new education-delivery strategies for working adults supported by remediation, financing, student services, curricula and program development, accreditation, credentialing, and faculty development—all of which together would promote access and success for working adults seeking post-secondary credentials. Modest, formula-based grants and incentive funding to states that choose to work with their colleges and universities to make these changes is required.

We need to rethink and restart our whole approach to adult basic education and English language training, and move toward a more demand-driven, technology-based strategy. A complete redesign of federal adult literacy strategy is in order. It is time to acknowledge that current policies and programs simply are not working, at least not at anywhere near the scale of the problem. This paper proposes building a new federal-state system of basic education for adults that starts from an economic perspective and builds on an employer-based definition of the basic skills needed in the 21st century economy.

We need to step up our national efforts to explain to working adults and their employers their shared interest in more and better education and help them learn how to plan, finance, and complete that education. An aggressive and targeted federal campaign aimed at lifting awareness of the importance of education for the adult workforce is needed. Perhaps the most important thing the federal government can do to spur new investment in education for adult workers is simply to make it clear why we care.

older in the U.S. have "below basic" prose literacy and 48 million (22 percent) have "below basic" quantitative literacy. Especially in a global economy, these low-literate adults are at very serious risk of never escaping subsistence or below-subsistence labor markets, and their limited job skills are a drag on national economic growth.

Unfortunately, America does not offer effective systems for adults already in the labor force to increase their educational attainment. This paper argues for new and better federal policy to support the education of working adults: basic education for those hampered by low literacy; English instruction for the non-language proficient; and postsecondary education for those needing educational and occupational credentials for job advancement and increased productivity.

Current federal policies designed to ameliorate these problems are failing. Adult basic education and language training programs serve only a tiny fraction of those who need help. Postsecondary student-aid policies are sharply skewed toward traditional students—recent high school graduates without dependents and with no labor market attachment. These policies promote postsecondary educational practices, such as program structures and delivery methods, which simply do not work for most working adults. We have no system in place that might encourage employers to invest more in the skills of their less prepared workers. And we offer little help to those low-skilled adults who are prepared to invest in their own education.

The problem of under-educated and under-skilled adults workers is getting worse, not better, which is why it is immediately necessary to put new strategies in place. This paper offers five suggestions. First, create new economic incentives for employers to help finance basic skill training, English as a Second Language or ESL training, and credentialed postsecondary education for their employees. To facilitate these new incentives, this paper proposes an employer tax credit in the amount of 50 percent of certain educational investments, up to $2,625 per employee per year.

Second, it is essential to strengthen existing incentives for individuals themselves to invest in their basic skills and their credentialed postsecondary education. This paper proposes an increase in the percentage of education expenses allowed under the Lifetime Learning Tax Credit from 20 percent to 50 percent, making LLTC tax credits of up to $2,000 per year available to far more working adult students. And we urge that the credit be made fully refundable for low-income workers.

Third, the United States needs more effective ways to encourage postsecondary institutions to develop more flexible programs and degree strategies that work for working adults. The answer: a five-year program of federal matching grants to those states that are most committed to helping their public postsecondary institutions create innovative and effective degree and credential pathways for working adults.

Fourth, adult basic education requires a new strategy centered on the deployment and utilization of technology to accelerate English-language proficiency among non-English speakers and employer-defined basic skills for low-literacy adults. This paper proposes that Congress revamp the existing federal adult basic education program, beginning anew with a more em-

ployment-focused and technology-based program that supports individual and employer investment in basic skills and English acquisition. The LLTC should be used as the primary funding vehicle for adult basic education and ESL instruction.

Finally, the U.S. government must launch a national marketing campaign to help millions of working adults and their employers better understand their shared interest in more and better education and learn about effective ways to plan, finance, and complete that education. A few years ago the state of Kentucky launched an aggressive adult education marketing campaign known as *Go Higher!* The remarkable success of that program offers a model for the national effort we propose.

These five proposals are bold only in their departure from current policy; they represent a measured and necessary response to a huge problem. These new approaches are "demand-side" strategies—market-oriented policy interventions that seek to stimulate and organize effective demand for education rather than simply trying to increase "more of the same' supply-side offerings. Our new strategies aim to influence, as directly as possible, the ways that less-educated workers and their employers spend their money so that together they invest more in education.

This is a big job that requires unambiguous and substantial economic incentives, unfiltered by intermediating agencies or institutions. The combination of targeted tax credits for both individuals and their employers, modest grants to states to support reforms in higher education, a new start for adult basic education and English language acquisition—all supported by an aggressive marketing campaign—offers an efficient method of incentive and reward.

What's more, this is a comprehensive educational strategy that over time will pay for itself many times over. If thousands of employers and millions of workers respond to our combination of tax credits and state-directed incentives, then reduced tax revenues and new appropriations might cost as much as $10 billion to 12 billion annually. Yet the downstream return on that human capital investment will be enormous—in the form of rising productivity, higher wages, a growing economy and widening tax base. We simply cannot afford not to make this investment.

Lifelong Learning

What Is The Problem?

Focusing our educational policies only on future entrants to the U.S. labor force will not boost educational attainment and will not sustain the economic growth that has resulted from improved education over the past several decades. Consider the following sets of facts about education, productivity gains, economic growth and technology innovation.

Education in the 20th century, especially since the 1960s, has been a major contributor to productivity gains in the U.S., and economic growth has been tightly linked to increases in education attainment. A congressional Joint Economic Committee report in 2000 found several estimates of the effect of human capital gains on economic growth in the range of 10 percent to 25 percent.[1] A more recent study concluded that the direct effect of educational advances accounts for about 22 percent of the 1.62 percent average annual increase in U.S. labor productivity from 1913 to 1996.[2] That study and others also underscored the indirect contribution of educational advances in fueling innovation and the adoption of new technology.[3]

Continued expansion of educational attainment levels over the next several decades will have substantial impact on future growth. In a flat world economy where innovation in technology and strategy flow freely across national borders, the economic consequence of producing more educated workers may be even greater than over the past several decades. Unfortunately, the remarkable increase in labor force educational attainment over the past several decades resulted from unusual demographic and educational factors that will not be replicated in the future.

From 1960 to 2000, the labor force more than doubled, growing to 141 million workers at the turn of the century from about 70 million workers as the baby boom generation came of working age. The number of workers in their prime productive years, ages 25 to 54, increased by over 120 percent in that 40-year period.[4] This huge increase in the number of working Americans was not just the result of the baby boom, however, but also the result of the dramatic increase in the labor force participation of women, reaching 62 percent of the workforce from 38 percent in 1960.

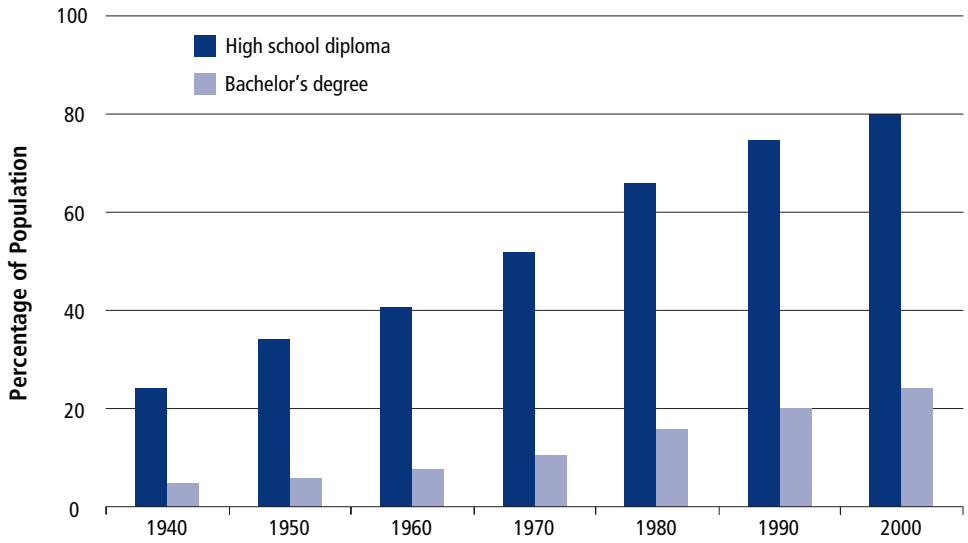
1 Investment in Education: Private and Public Returns, Joint Economic Committee, U.S. Congress, January 2000.

2 Gordon, Robert J. 2000. "Interpreting the 'One Big Wave' in U.S. Long-Term Productivity Growth." NBER Working Paper No. 7752, June 2000.

3 See also "Sustaining U.S. Economic Growth" by J. Bradford DeLong, Claudia Goldin, and Lawrence F. Katz in *Agenda for the Nation*, Henry J. Aaron, James M. Lindsay, and Pietro S. Nivola, editors. Brookings Institution Press, 2003.

4 For a summary of BLS data on labor force by age, historical and projected, see "A Century of Change: The U.S. Labor Force, 1950–2050" by Mira Toosi of the Bureau of Labor Statistics as published in *Monthly Labor Review*, May 2002.

EDUCATIONAL ATTAINMENT FOR THE POPULATION 25 YEARS AND OLDER (1940–2000)



Source: U.S. Census Bureau, Decennial Census of Population, 1940 to 2000.

This dramatic growth in the labor force was accompanied by impressive gains in educational attainment. In 1960 just 41 percent of the population over the age of 25 had completed high school. By 2000, 80.4 percent had at least at high school diploma. College attainment of the labor force also began to increase significantly the 1960s and continued to grow rapidly through the 1970s and 1980s. In 1960, only 7.7 percent of adults (age 25 and older) had a bachelor's degree or higher, by 2000 this had increased to 24.4 percent as number of college degrees awarded annually by degree-granting institutions increased steadily.[5] In 1970 about 1.0 million associate and bachelor degrees were awarded. Annual degree production increased to 1.3 million in 1980, 1.6 million by 1990, and 1.8 million by 2000.[6] Although the annual rate of increase in college degrees awarded slowed as the century ended, the total number of college-educated workers more than doubled in that 40-year span.

Thus, in percentage terms and in absolute numbers, there was a large increase in college-educated workers (and many more high school completers) moving into their prime working years. Especially from 1970 to 2000, workers entering their prime working years from 25 to 54 had much higher levels of education than those aging out of the prime age group and those leaving the workforce altogether.

But these advantageous trends have now fully played out. Over the next 40 years, the labor force will not grow at anywhere near the rate of growth of the past 40 years. The Bureau of Labor Statistics projects total labor force growth of only 29 percent between 2000 and 2040, way down from the 102 percent over the past 40 years. Among the prime age workers

5 U.S. Census Bureau, Decennial Census of Population, 1940 to 2000 as summarized in "A Half-Century of Learning: Historical Statistics on Educational Attainment in the United States, 1940 to 2000" released on April 6, 2006.

6 From tables included in the *Digest of Education Statistics, 2006* as published by the National Center for Education Statistics.

25 to 54, BLS projects cumulative growth of only 16 percent, a small fraction of the 120 percent increase in the past 40 years. Moreover, just as huge numbers of baby boomers age out of the workforce and into retirement, labor force participation rates for men as well as women will decline.

In fact, that decline in has already begun. From a high of 67.1 percent in 2000, the participation rate declined to 66.0 per cent in 2005, and the BLS projects it will continue to decline each decade to reach 60.8 percent in 2040.[7]

But sluggish labor force growth is only half the story. Over the next four decades, we can expect very little gain (and very likely an actual decline) in the educational attainment of the workforce, at least as a consequence of young adults moving into and through the labor force. There are three big reasons for this. First, the middle-aged and older cohorts in the current labor force (from age 35 to 54) are now as well educated as the younger cohorts (age 25 to 34) coming up behind them, especially in the percentage with at least a high school degree, but also in the percentage with some postsecondary attainment. That means over the next several decades there will be no "automatic" attainment gain as current workers age and older workers leave the labor force.

Second, a dramatic slowdown in educational attainment is already well underway. From 1980 to 2000, there was virtually no increase in the percentage of individuals ages 25 to 34 with a high school degree or better and, among males, that percentage actually declined over the period. From 1980 to 1990, the pace of increase in bachelor's degree attainment among 25-to-34 year olds similarly plateaued, again actually declining among males. It increased again in the 1990s only as the "echo" of the baby passed through their traditional college years.[8]

The *college entrance rate* for high school graduates slowly increased from about 50 percent in the 1960s to just over 60 percent in the 1990s, but the rate has since fluctuated within a narrow range of 60 percent to 65 percent and shows no sign of consistent increase. The *college graduation rate* has actually decreased, at least over the past 20 years. In 1983, four-year colleges graduated on average about 58 percent of their students within five years, and two-year colleges graduated about 44 percent within three years. By 2003 these rates had fallen to 55 percent for four-year schools (41 percent at public colleges and universities where most students are enrolled) and 39 percent at two-year colleges.[9]

Third, because younger age cohorts in this country are more racially and ethnically diverse and have greater representation from groups that historically have not been well-served in either K-12 or postsecondary education, their educational attainment rates are likely to drop—at just the time when the economy needs them to rise. According to 2000 Census data, whites are twice as likely as African Americans and three times as likely as Hispanics to earn a bachelor's degree. What's worse, the racial gap in educational attainment has steadily increased since 1980.

Over the next two decades, that attainment gap will have a larger and larger

7 A Century of Change: The U.S. Labor Force, 1950–2050 by Mira Toosi of the Bureau of Labor Statistics as published in *Monthly Labor Review*, May 2002.

8 U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), Annual Social and Economic Study Supplement, 1980–2000.

9 From data compiled by ACT and summarized in ACT News, April 1, 1998 and November 15, 2002 as accessed at http://www.act.org/news/index.html.

impact on the workforce. By 2020, the proportion of whites in the workforce between the ages of 25 and 64 is expected to drop 19 percentage points, to 63 percent, down from its 1980 level of 82 percent. During the same period, the percentage of Hispanic residents aged 25-to-64 will nearly triple, to 17 percent from 6 percent, and the proportion of African Americans in the U.S. population will grow by almost a third.[10]

If these current patterns continue, the inevitable result will be significant erosion in the average education level of the U.S. labor force. The percentage of the labor force with less than a high school diploma will probably grow over the next 20 years, and that will be accompanied by decreases in the fraction of the population that will have earned higher-level credentials and degrees.

There are at least two important wild cards in these projections. One is immigration, which over the past 10 years has accounted for nearly one-half of net labor force growth in the U.S. The current U.S. pattern adds to the population of younger age groups, offsetting the very slow growth of the native-born population and lowering the average age of the working age population. But it also grows more rapidly the proportion of the population without a high school diploma. The BLS calculates that 28.3 percent of foreign born workers in the United States have less than a high school diploma compared to 6.6 percent of native born adult workers. In contrast, the bachelor's degree and higher attainment rates of foreign-born adult workers, at (30.9 percent, are not dramatically different from native-born adult workers, at 32.7 percent.[11]

Further, increasing the numbers of highly educated immigrants is not a solution to the United States' inability to educate more of our native born workforce. Current levels of new and continued employment petitions of highly educated workers stands at about 216,000 per year.[12] Even a massive increase in this number would make only a small dent on education attainment levels of the national workforce both current and projected.

The other wild card is the prolonged labor force participation of older workers. The BLS projections summarized above assume continued increases in the participation of the population age 65 and older, rising from 12.9 percent in 2000 to 21.5 percent in 2020 but then declining slightly over the next two decades.[13] It is possible that even larger numbers of these older workers will elect to remain longer in the labor force, which means the participation rate could rise over the next 10 years to 15 years even higher than BLS projects and then not decline after 2020.

That's not nothing. Given the size and educational attainment levels of these aging baby boomers, prolonging their labor force participation could have a major impact on overall labor force attainment. Still, it seems very unlikely that the participation rate of those 65 years of age and older would increase above 25 percent, which would not come close to offsetting the likely decline in educational

10 *Mapping the Adult Learner Landscape: Growth and Changes in the Pursuit of Workforce Excellence*, A Report to the U.S. Department of labor, Eduventures, September 2006.

11 Characteristics of Specialty Occupation Workers (H1-B) 2005, U.S. Department of Homeland Security, U.S. Citizenship and Immigration Services, November 2006.

12 Current Population Survey, Educational Attainment in the United States: 2005, Detailed Tables, Table 10: Educational Attainment of the Population 25 Years and Over, by Citizenship, Nativity and Period of Entry, Age, Sex, Race, and Hispanic Origin: 2005.

13 "A Century of Change: The U.S. Labor Force, 1950–2050" by Mira Toosi of the Bureau of Labor Statistics as published in *Monthly Labor Review*, May 2002.

attainment levels among the younger age cohorts over the next 30 years.

The obvious conclusion: We cannot expect to improve the education quality and productivity of our workforce over the next several decades simply by relying on demographic trends that were advantageous in the past. Those trends now will take us the other way.

The policy implications are equally obvious. It is very important to work toward reducing high school dropouts and increasing college participation of all young people, yet it would be naïve to pretend these efforts will maintain the pace of labor force attainment growth we have experienced over the past several decades. Because we cannot simply grow our way out of this problem, we must put in place new policies that can boost labor productivity and fuel economic growth by improving the skills and education attainment of adults already in the workforce.

Working Adults Without Enough Education

The good news (and the bad news) is that there is a great deal of room for improvement in the education attainment possibilities of the current workforce. Not withstanding the impressive gains of the past 40 years, more than half of the adult workforce has not been adequately prepared for good jobs in the 21st century economy. In 2005, there were about 120 million people in the U.S. labor force from age 25 to 64. About 40 percent of them (48 million) had only a high school degree or less (11.8 million had not completed high school or its equivalent) and had never attempted postsecondary education. Some 51 million adult workers (42.4 percent) had a college degree at the associate's, bachelor's, or advanced level.

In between these two groups were another 21.4 million workers ages 25 to 64 with some college education, but no degree. Little is known about the postsecondary education of these individuals. A significant number of them may have technical certificates achieved through college-level study in programs culminating in credentials below the Associate's degree. The National Center for Education Statistics, for example, reports that in the ten years from 1994–95 to 2003–04 postsecondary institutions granted about 2.8 million sub-baccalaureate awards at below the Associate's degree level.[14] Many other adult workers, perhaps tens of thousands every year, achieve industry-awarded certifications for which they prepared through formal postsecondary study.[15]

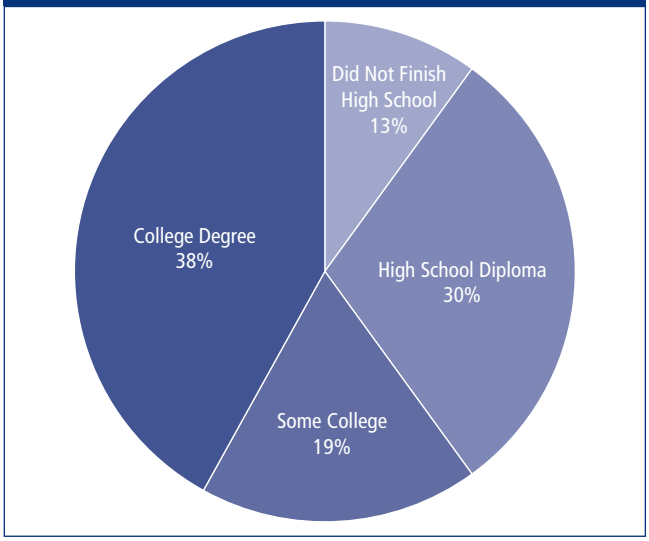
Still, based on available evidence about the postsecondary persistence and retention of college students, it seems quite likely that about two-thirds of this group of 21.4 million adult workers attended college briefly within a few years of high school graduation but dropped out before gaining any credential and failed to return. This means that more than half of our adult workforce—about 62 million working adults—lacks a postsecondary credential of any kind.

This is a serious problem for these workers. Most are trapped in low-wage jobs

14 Compiled from U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey, "Degree and Other Formal Awards Conferred" surveys, and Integrated Postsecondary Education Data System (IPEDS) surveys.

15 The Census Bureau annual surveys permits regular and accurate estimates of the percentage of the population with conventional academic degrees and certificates. However, no single organization makes reliable estimates of the number of people who hold industry-recognized credentials gained through education and training in postsecondary institutions.

EDUCATION ATTAINMENT OF WORKFORCE, 2005



Source: U.S. Census Bureau, Current Population Survey, 2005 Annual Social and Economic Supplement, Internet Release Date: October 26, 2006.

and increasingly vulnerable in a skill-biased economy that has made education the most important determinant of economic success and driver of growing inequality. Adult workers who have not gained a postsecondary credential make substantially less money than those who have, annually and over their lifetime. They are at much greater risk of economic dislocation. They do not save and invest in assets at the same pace as their better-educated co-workers. There is less opportunity for them to pass on those assets they do manage to accumulate to their children, and much less chance their own children will go to college.

Those who attempted college but did not complete are not much better off. Recent studies indicate that economic returns to less than 30 credit hours of postsecondary education that does not result in a formal credential are very small or negligible.[16]

Education attainment has long made a big difference in earnings, but the premium associated with going to college over not going has increased markedly over the past few decades. The wage advantage of having a college degree over a high school diploma more than doubled between 1970 and 2000—even as the supply of college graduates increased sharply.

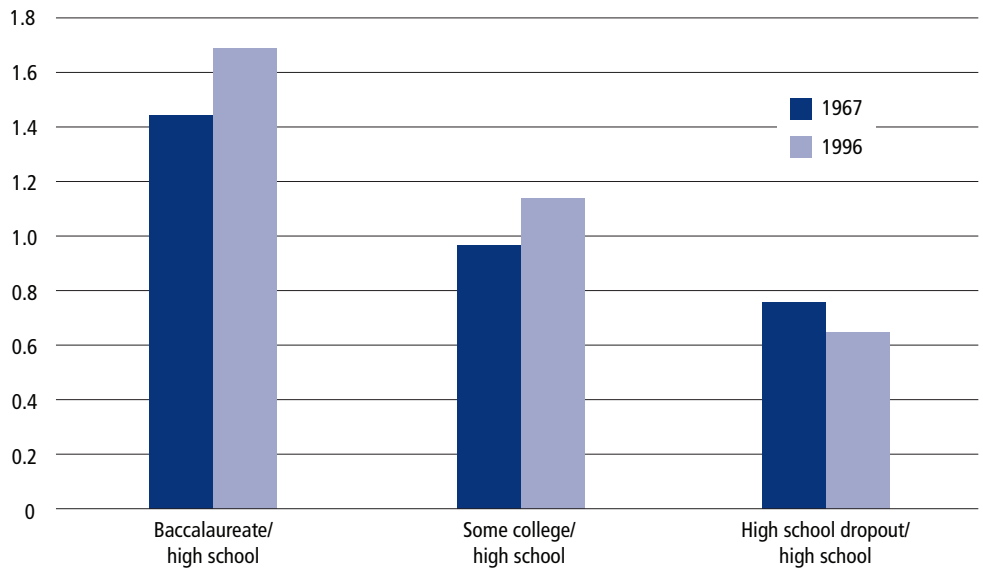
Indeed, there is no apparent slowdown in the demand for college graduates, either at the baccalaureate level and above or at the sub-baccalaureate level. While some labor economists have warned of the possibility that the supply of bachelor's degree college graduates will begin to outstrip demand, the labor market has shown no signs of that, and the pace of earnings growth for college graduates over non-college graduates has continued to increase. Anthony Carnevale and Jeffery Strohl project a *surplus* by 2012 of about three million workers with just a high school degree and a *deficit* of about seven million workers with at least some postsecondary education.[17]

Bureau of Labor Statistics data show a steady increase in the percentage of new jobs requiring at least some college and, more significantly, a continued slowdown in the rate of growth of new jobs that might be filled by individuals with only a high school degree. According to the BLS, about 24 percent of the 146 million jobs in 2004 were in occupations generally requiring a bachelor's degree or higher.

16 Alphonso, Mariana, Thomas Bailey and Marc Scott, 2005 "The Educational Outcomes of Occupational Sub-Baccalaureate Students: Evidence from the 1990s" *Economics of Education Review*, v.24, pp.197–212. See also, Grubb, Norton. 2002, "Learning and Earning in the Middle, Part I: National Studies of Pre-Baccalaureate Education" *Economic of Education Review*, v.21, pp.299–321.

17 As summarized by Anthony Carnevale in "Discounting Education's Value," *Chronicle of Higher Education,* September 22, 2006.

EARNINGS RATIOS FOR MALES OVER TIME



Source: Norton Grubb, "Learning and Earning in the Middle: The Economic Benefits of Sub-Baccalaureate Education" (New York, 1999).

Of the roughly 19 million new jobs projected from 2004 to 2014, however, BLS estimates that 36 percent will be in occupations requiring a bachelor's degree or higher. In 2004, 47 percent of jobs were in occupations typically requiring a high school degree or less, but only 37 percent of new jobs over the 2004–14 period are projected to be filled by those with a high school education or less.[18]

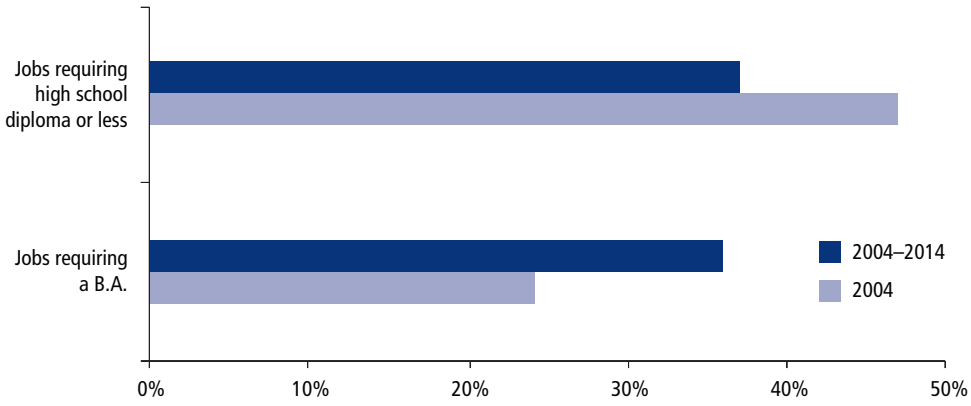
To be sure, over the next few decades there will be lots of new jobs being created for people with limited education, especially in low-wage, service sector occupations characterized by high churn. But having enough people to fill those jobs is not the problem; our challenge is to prepare enough people to fill the new jobs that require postsecondary education. The likelihood is that demand for more educated workers will outstrip supply.

Education attainment also influences the distribution of incomes and growth within the United States. Regions with fewer than average numbers of college graduates experience lower per capita incomes and slower growth. Regions with above average numbers of college graduates experience faster growth and higher per capita incomes. Paul Gottlieb and Michael Fogerty of Case Western Reserve University's Center for Regional Economic Issues in Cleveland compared income and productivity growth in the period of 1980 to 1998 between metropolitan areas with the highest proportion of college graduates and those with the lowest proportion. The ten regions with the most college graduates experienced per-capita income growth of 1.8 percent annually during those years, while the ten regions with the fewest college graduates saw an annual income growth of 0.8 percent.

Gottlieb and Fogerty also found that the impact of the growth differential is evident in the widening gap in per-capita in-

18 U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Projections and Training Data February 2006 Edition*, Bulletin 2006–07.

JOB AVAILABILITY BY ATTAINMENT LEVEL



Source: Bureau of Labor Statistics, "Employment Projections 2004–2014" (2005).

come between the two groups of regions. In 1980, the average per-capita income in the most-educated metropolitan areas was 12 percent above the U.S. average, while average per-capita income in the least-educated regions was 3 percent below the national average. By 1998, the most-educated regions had average incomes 20 percent above the national average, while average incomes in the least-educated regions had fallen to 12 percent below the national average. Moreover, the most-educated regions enjoyed productivity growth of 0.5 percent per year, compared with growth of 0.1 percent for the least-educated cities.[19]

Encouragingly, there is growing demand and perhaps even the stirrings of heretofore-latent political constituency for adult learning. Working adults are reading the signals of the labor market, and more and more of them are enrolling in college. As a result, the percentage of degree-seeking undergraduates in postsecondary institutions who are age 24 and older has increased to 43 percent in 2003–04, from only about 27 percent in 1970–71—even as undergraduate enrollment has doubled to 14.9 million in 2004 from 7.4 million students in 1970.

Most of these adult students have strong connections to the labor market. In one study of the 7.1 million degree-seeking students age 24 and older enrolled in college (undergraduate and graduate) in 1999–2000, 56 percent identified themselves as "employees who study." Only 26 percent called themselves "students who work." And only 18 percent were not employed during the school year.[20]

Unfortunately, there are relatively high levels of attrition from college before completion among working adults as compared to traditional students. Longitudinal research has found that six years after students began their postsecondary education, 62 percent of adult "employees who study" had not completed a degree or certificate and were no longer enrolled, while 37 per-

19 Gottlieb, Paul, and Michael Fogerty, 2003, Educational Attainment and Metropolitan Growth. *Economic Development Quarterly*, Vol. 17, No. 4, 325–336.

20 Berker, Ali, and Laura J. Horn. 2003. *Work First, Study Second: Adult Undergraduates Who Combine Employment and Postsecondary Enrollment,* NCES 2003-167.

cent had achieved a degree or certificate. Among the adult "students who work," the rate of attrition was only 39 percent, with 44 percent of them achieving their credential within six years. Among younger, traditional students the six-year rate of degree completion is about 75 percent.

Employees who study were at particular risk of leaving postsecondary education in their very first year. Among students with a degree goal, 32 percent of employees who study left in their first year with no credentials, compared with 7 percent of students who work.[21]

The reasons for the higher level of attrition among working adult students seeking undergraduate degree or certificates are not that difficult to establish. Many have rusty basic skills and struggle academically. Working adults attempting college have constraints of time and scheduling flexibility that traditional students do not have. With obligations to their job and frequently to family, working adults attend college at a slower pace; most attend part-time basis and many take courses in only one semester each year.

There are obvious financial barriers. Adult workers with no college credentials do not make much money at all. Paying even $300 to $500 in tuition and fees per course at a community college (much less $800 to $1,200 or more for one course at a public four-year college) competes very poorly against other necessary living expenses. This does not include the extra costs of books, transportation, and childcare.

Even more significantly, there is a fundamental disconnect between the needs of adult workers for scheduling flexibility and program compression and the basic structure of postsecondary education at most colleges and universities. Most postsecondary education institutions ask working adults seeking degrees and other labor market credentials to get their education the same way that adolescents get theirs. Programs are typically available over 16-week semesters, with each course usually requiring multiple campus visits each week, very often during the day when most adults are working. There is great emphasis on contact hours and very little attention to demonstration of proficiency.

Some colleges, especially more market-sensitive private and proprietary institutions, now realize that high attrition rates among working adults is an indication that the traditional delivery systems do not work well for working adults. These entrepreneurial institutions have developed compressed and accelerated programs delivered on-line or exclusively in evening and weekend classes. Most public institutions, however, are not particularly market sensitive; they stick to traditional delivery formats and label the working adults as "high-risk" students.

Further Segmenting the Problem

In assessing policy options that would have a significant impact on helping many more working adults gain college credentials, it is important to understand the different populations of adult learners. Many adults, notably the already well educated, need little additional support or encouragement. Among working adults, participation in postsecondary education increases dramatically with educational attainment.

The National Household Education Survey of 2003 found that only 14.3 per-

21 Berker, Ali, and Laura J. Horn. 2003. *Work First, Study Second: Adult Undergraduates Who Combine Employment and Postsecondary Enrollment,* NCES 2003-167.

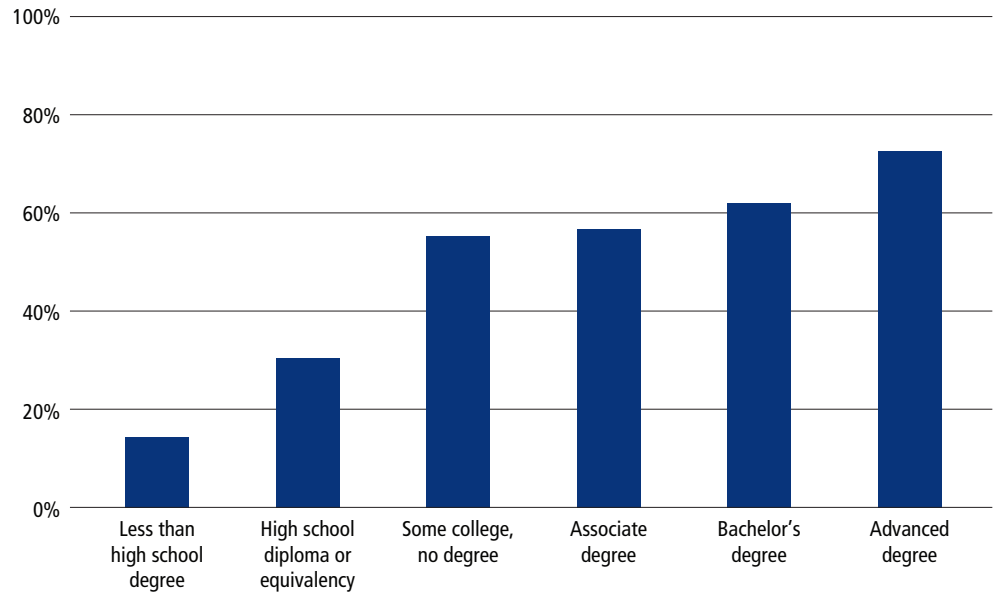
cent for those with less than a high school degree participated in some form of adult education. Participation rates, however, increased sharply among those with higher attainment levels:

- 31.3 percent for those with a high school diploma or GED
- 56.5 percent for those with some college but no degree
- 57.6 percent for those with an associate degree
- 62.7 percent for those with a Bachelor's degree
- 73.4 percent for those with advanced degrees.

This suggests that many of the adults in postsecondary programs already have postsecondary credentials and are pursuing additional credentials to advance in their career or move into a new occupation. They are experienced learners and generally know how to navigate postsecondary education. Often they make enough money to afford it on a pay-as-you-go basis or they are at a level in the labor market where they are able to borrow what they need for further college.

Moreover, many of them get employer support. In fact, employer surveys have found consistently that adults with college degrees are far more likely than those with no college to receive employer support when they pursue higher education. These already-educated working adults seeking more education certainly merit our congratulations, but they require little new help from government. Most important for them would be government policies and incentives that encourage col-

ADULT PARTICIPATION IN POSTSECONDARY EDUCATION ACCORDING TO ATTAINMENT LEVEL



Source: National Center for Education Statistics, "National Household Education Survey of 2003."

leges and universities to be more working adult friendly in their program structures, schedules, and instructional strategies.

Our primary concern, however, is with those working adults without postsecondary credentials. While more of them are going to college or otherwise pursuing postsecondary skill development, as we have seen, not many are actually gaining college credentials. The upshot: social and economic gaps between those with postsecondary credentials and those without are getting wider. Consider the different circumstances of these 62 million people.

Those Who Tried College Once but Dropped Out

As noted above, there are over 21 million adults who have some postsecondary experience but no degree. Some may have achieved an occupational certificate but most dropped out of college before completing any academic degree or certificate. They have already tried college once, but for many reasons, it did not work and they dropped out.

This segment is actually growing every year as more young people are attempting college but failing to gain a degree. As adults, they now have more responsibilities to address with their limited incomes, and they often face high financial barriers to "going back" to gain a credential. Very few are likely to enroll full-time in conventional college programs.

These adults need student-aid policies and programs that work for part-time learners. They need more help from their employers, both in financing the cost of education and in offering employment flexibility that will allow part-time college enrollment over a sustained period of two or more years. From the colleges themselves, they need flexible programs and delivery systems that fit their more complicated lives.

Those Who Completed High School but Didn't Attempt College

There are an additional 36 million working adults age 25 to 64 in the U.S. workforce who completed high school but never attempted college, either because they didn't think they needed it or they feared they would not be successful. Without any college, most of them are in very low wage jobs, and they face all the colleges barriers associated with bottom-of-the-labor-market employment. They work hard; they don't have much time and they don't have much flexibility. They aren't very good at career planning and they don't know how to navigate postsecondary systems. They certainly don't have much money.

Like those who previously and unsuccessfully attempted college, they need help from their employers and as well as more direct incentives to invest in their own education. They also need educational institutions to take greater responsibility for creating postsecondary educational pathways that they can trust.

Those Who Did Not Complete High School

There are about 11.8 million adult workers in the U.S. workforce age 25 to 64 who did not complete high school. These non-completers are not all just "older workers" who are a generation or so out of school. Fully a third of them are young

workers between 25 and 34 years old who just came into the labor force. And this does not count the not-yet-adults, another 3 million 18-to-24 year-olds without a high school diploma, not seeking one, and in the full-time civilian work force.

These adults without a high school degree would need a lot of financial help and a lot of support from the postsecondary institutions. Most of them would require extensive remediation if they are to succeed at college level work. Some of these very low proficiency working adults may pursue only vocational training that does not require high school completion; even more would profit from adult learning systems that move them into and through credentialed vocational training *and* prepare them for further postsecondary education, offering a high school diploma along the way. But even if they choose a "non-college" path, they will need help getting there and being successful.

Those with Very Low Basic Skills

According to the National Household Education Survey of 2005, only one percent of the population age 16 and older participated in a basic education program in 2005, down from an average of 2 percent in the period 1991–1999. Even among those without a high school diploma or its equivalent (and not involved in primary or secondary education), only seven percent participated in basic skill or GED programs. According to the 2005 Survey, only about one percent of the age 16 plus population participated in English as a Second language programs.

Given these very low rates of participation in adult basic education and ESL programs, it comes as no surprise that there has been little change in the number and percentage of very low literate individuals in the work force. The 2003 National Assessment of Adult Literacy estimates that 30 million adults (age 16 plus) in America have "below basic" prose literacy skills, meaning that they could perform only the most simple and concrete literacy skills. The NAAL study estimates that another 11 million are classified as non-literate because they could not answer the test questions. Moreover, literacy decreased sharply among those without a high school diploma.[22]

Those Who Don't Speak English Well Enough

The Urban Institute estimates that in 2005 there were about 34.5 million foreign-born individuals in the U.S. Immigration has heightened the adult basic skill problem, although it is difficult to determine how many foreign-born workers do not speak English with the proficiency required to pass high school equivalency examinations or take college level courses. According to the 2000 Census, about 47 million U.S. residents reported that they at least predominantly spoke a language other than English at home and over 21 million spoke English less that "very well", the threshold for full proficiency in English as determined by the U.S. Department of Education.

That self-estimate, however, may be low. The International Adult Literacy Survey calculates that 64 percent of the second-language foreign-born between the ages of 16 and 65 are at Level 1 of a five-level scale first created in 1993 for the National Adult Literacy Survey in the U.S., meaning that they have difficulty reading and

22 *Literacy in Everyday Life: Results from the 2003 National Assessment of Adult Literacy*, National Center on Education Statistics, U.S. Department of Education, NCES 2007-480.

using even simple, clearly formatted print information in English. More than another 25 percent are only at Level II, with skills clearly inadequate for success in college level education and training programs.

College access is of no benefit to workers with low English proficiency, yet few of them are taking ESL instruction. According to a 1998 study reported by the National Center for Education Statistics, only 11 percent of non-English speaking adults had participated in even one ESL class in the 12 months prior to the study.

Shortcomings of Current Policy

The U.S. does not have a comprehensive national strategy for promoting the education attainment of working adults. Over the past many decades, a number of programs have been established to focus on particular sub-sets of adults needing education and training, but these are fragmented in design, modest in scale and scope, and limited in impact. Consider the following collection of piecemeal programs now available to working adults seeking to further their education.

Federal Student Loans and Grants

The *Higher Education Act* offers the largest federal program of support for postsecondary education through grants and loans to eligible individuals and relatively modest grants to some postsecondary institutions. Very little of these HEA resources, however, are available to working adults seeking postsecondary credentials through this program. First, to be eligible for HEA aid, students must be seeking a formal degree or other postsecondary academic certificate. While remedial or developmental education courses are HEA-aid eligible, the skills being remediated must be at the high school level.

Second, because of limits on individual eligibility for aid and limits on the kinds of education and training program eligible students may pursue, almost all of the federal student aid resources (and the state programs that tend to mirror federal eligibility requirements) is directed to traditional students—recent high school graduates with no dependents and without attachment to the labor market.

Indeed, the HEA grant programs and some of the loan programs require a demonstration of family financial need established through uniform process known as the Free Application for Federal Student Aid, or FAFSA, from which the Department of Education calculates the Expected Family Contribution, or EFC funding. Schools estimate their Cost of Attendance, subtract the EFC, and then work with the student to at least partially bridge the gap with grants, loans, and work-study as appropriate.

There are three federal student loan programs under the HEA—the small "Perkins Loan" program for students with exceptional need who are enrolled full or part time, and two larger "Stafford Loan" programs (subsidized for those who demonstrate need and unsubsidized for those who do not) for students who are enrolled at least half time. The Federal Stafford Direct Loans come from the U.S. Department of Education and are delivered through the schools and repaid to the schools. The Federal Family Education Stafford Loans come from a bank, credit union, or other private lender and

are repaid to the lender or its collection agent. In 2003–04, about $1.2 billion was loaned under the Perkins program and about $48.4 billion was loaned under the two Stafford programs.

The requirement for half-time attendance is a tough barrier to eligibility for most working adults. This prohibition against federal loans, subsidized or unsubsidized, for less-than-half-time enrollment does not mean that working adults do not borrow when they enroll in only a few courses at a time; it simply means that they must borrow from higher-cost private sources.

Of the federal grants available to students who can demonstrate need, the Pell Grant is by far the largest. In 2003–04, 5.1 million students received an average award of $2,466 for a total of $12.7 billion. For 2007–08, the maximum grant is now set at $4,310 and the minimum award is $400. With passage of new legislation in 2007, the maximum grant will increase next year to $4,800 and will continue to rise to $5,400 by 2012.

Pell grants are available to students regardless of the number of classes in which they enroll, but the determination of need for less-than-half-time students—and most working adults must enroll on a less-than-half-time basis—differs in several ways from the calculation for those who are half time or more. For example, the Pell formula that counts direct expenses is different (and more restrictive) for less-than-half-time students.

The discretion afforded to institutions to deny Pell aid to students based on a lack of "satisfactory progress" toward completion also works against working adults who might be forced by job or family considerations to drop out for a semester. Two or three under-average grades in succession, or feeling forced to drop a course and then not being able to "double-up" the next semester, can quickly jeopardize aid eligibility. Non-credit courses are not eligible for Pell resources, adversely affecting working adults who have to enroll in vocationally and occupationally focused courses that often are offered on a non-credit basis through continuing education departments at times that fit their work schedule better than for-credit courses. These non-credit courses can be very attractive to workers seeking skills and knowledge that would help them pass an industry-certified examination leading to an industry-recognized certification.

Working adults frequently find it difficult to attend college in traditional schedule formats because of competing demands of work and family. Postsecondary institutions could respond to these students' needs by breaking longer college programs into shorter modules or compressing longer programs into shorter, more intensive formats that can be completed as students have time. Colleges, however, tend to avoid such modules or compressed programs out of concern that they will be ineligible for financial aid because of their shorter length.

Case in point: Pell's "eligible program" criteria stipulate that Pell-eligible students must attend courses that meet for a minimum number of total hours. Federal student aid regulations require that in order to be Pell-eligible, programs must provide at least a 15-week program that offers 600 clock hours, 16 semester or trimester hours, or 24 quarter hours. Shorter programs that offer a minimum of 300 clock hours over a 10-week pro-

gram may be eligible for federal loan participation, but not for Pell grants.[23]

Tax Credits

The Taxpayer Relief Act of 1997 introduced the Hope Scholarship and Lifetime Learning Tax Credits programs with the goal of making college more affordable and encouraging lifelong learning. The two tax credits were designed to complement each other by targeting different groups of students. While the Hope Scholarship credit may be used only for a student's first two years of post-secondary education, the LLTC is available for unlimited years to those taking classes beyond their first two years of college, including college juniors and seniors, graduate students, and working adults pursuing lifelong learning. Eligible expenses for each credit include only tuition and required fees.

Both credits are available only for eligible expenses of students attending accredited institutions of postsecondary learning approved for participation in the Higher Education Act by the U.S. Department of Education. Tax filers may claim a credit for tuition and fee expenditures only after subtracting grants, scholarships, and other tax-free educational assistance, including Pell Grants, employer-provided education assistance, and Veteran's educational assistance.

Hope Scholarships provide a credit equal to 100 percent of the first $1,000 plus 50 percent of the next $1,000 of net tuition and fees paid during the tax year, for a maximum credit of $1,500. The student must be enrolled at least half time (at least six credit hours per semester, which typically requires a minimum two classes at a time) and pursue a degree or other recognized educational credential in order to be eligible.

In contrast, under the LLTC individuals are not required to enroll at least half time or pursue an educational credential in order to be eligible. This makes the LLTC available to working adults who might take less than six credit hours at a time or to those enrolled in any course aimed at acquiring or improving job skills. In theory, the LLTC could include adult basic education and English for speakers of other languages, but only at federally approved postsecondary institutions. Alas, few of these institutions offer pre-secondary level basic instruction because it is not eligible for support under Pell Grants or federal student loans.

When first enacted, the LLTC credit was equal to 20 percent of the first $5,000 of net tuition and fees, for a maximum credit of $1,000. A few years ago, the limit was raised to $10,000 and the maximum credit became $2,000. Neither the HOPE credit nor the LLTC is now refundable; they simply reduce the amount of taxes filers owe.

The benefits of the tax credits phase out for higher-income taxpayers beginning at an adjusted gross income of $83,000 for a joint return ($41,000 for single filers) with no benefit for families with incomes above $103,000 ($51,000 for single). With these relatively high thresholds, tax credits for higher education expenses have the most extensive eligibility of any federal program. In comparison, Pell Grants are strictly limited to families with incomes below $40,000. Nearly 90 percent of Pell Grant funds is awarded to families with incomes under $30,000 and 54 percent of those families has incomes under $10,000.

23 For more detailed information on the federal student aid limitations facing working adults, see Bosworth, Brian and Victoria Choitz. 2002. *Held Back: How Student Aid Programs Fail Working Adults*, Arlington, MA: FutureWorks.

EDUCATION TAX CREDITS (1998 TO 2004)

TAX YEAR	1998	1999	2000	2001	2002	2003	2004
1. Tax Returns Filed (millions)	124.8	127.1	129.4	130.3	130.1	130.4	132.2
2. Number Claiming Hope Credits[24]*	2.6	3.3	3.4	3.6	3.3	3.5	3.4
3. Hope Credits Claimed ($billions)*	$3.1	$4.0	$4.1	$4.2	$4.1	$4.2	$4.2
4. Number Claiming LLTC Credits*	2.3	3.6	3.9	4.2	3.5	4.2	4.1
5. LLTC Credits Claimed ($billions)*	$0.9	$1.7	$1.9	$2.1	$1.9	$3.1	$3.2
6. Number Awarded Education Credits (millions)	4.7	6.3	6.8	7.2	6.5	7.3	7.2
7. Total Education Credits Awarded ($billions)	$3.4	$4.8	$4.9	$5.2	$4.9	$5.8	$6.0

Source: Compiled by the author from unpublished data provided by the Internal Revenue Service, 2006.

Utilization of the tax credits has been substantially below the estimates offered when the program was introduced in 1997. At the time, the Department of Education projected that credits would amount to $40 billion in the first five years and rise steadily after that. In fact, the credits amounted to only about $23 billion over the first five years. Preliminary date from the Internal Revenue Service suggests that in 2004 these education tax credits actually awarded amounted to about $6.0 billion, a modest increase over previous years, but still way below the estimates of the program designers. At least part of the explanation seems to be that the LLTC credits have been hard for adult learners to use.

In 2004, about 54 percent of the returns claimed a credit under the LLTC while 44 percent claimed a credit under Hope. Yet Hope scholarships account for about 60 percent of the total dollar credits claimed, an imbalance that results from the basic structure of the credits. Because they are attending half time or more, traditional students who are (or whose parents are) the targets of Hope almost always incur $2,000 a year of allowable costs and therefore easily become eligible for the full amount of the credit available at their household income level. The less traditional students who are the target of the LLTC mostly attend part-time and far less frequently incur educational costs anywhere close to $10,000 per year. They seldom become eligible for the full amount of the credit available at their household income level.

Adult Basic Education

In recent federal fiscal years, the federal Adult and Family Literacy Act (Title II of the Workforce Development Act) has allocated about $500 million annually to the states for adult literacy programs. Most states, however, match these federal grants with more than the required 25 percent. Total state and local matching funds have been about $1 billion annually for the past few years, but overall state funding has actually decreased since 2000. The states in turn allocate

24 Please note that the number and amounts of Hope and Lifetime Learning Credits are tentative amounts from Parts I and II of the Form 8863. Testing for income and availability of income taxes done in an aggregated fashion in Part III of the Form 8683. Therefore, the actual amount of the credit that can be attributed to Hope versus LLTC cannot be determined with precision and the sum of the two credits claimed will be greater than the actual education credit awarded. Also, some tax filers claimed both Hope and LLTC credits.

* Please note that the number and amounts of Hope and Lifetime Learning Credits are tentative amounts from Parts I and II of the Form 8863. Testing for income and availability of income taxes done in an aggregated fashion in Part III of the Form 8683. Therefore, the actual amount of the credit that can be attributed to Hope versus LLTC cannot be determined with precision and the sum of the two credits claimed will be greater than the actual education credit awarded. Also, some tax filers claimed both Hope and LLTC credits.

these funds to local providers, usually local education agencies and community-based organizations and often to correctional institutions.

Using what we would describe as a traditional "supply-side" strategy, these providers typically market their service directly to individuals and, up to the limits of their resource capability, offer free services to those most in need of literacy education. Most programs fall into three categories: adult basic education; English as a second language, and adult secondary programs (for GEDs or high school diplomas).

During much of the 1990s, enrollment in these publicly supported programs was between 3.5 and 4 million people, but in recent years the number of participants has slipped to about 2.7 million. Only about one third of these participants are adult workers age 25 and older and in the active labor force, and many of these enrollees are not adults at all. Almost 40 percent are young people of high school age or just older (ages 16 to 24), and about half of those are simply using adult basic education as an alternative pathway to high school completion.

Among those 2.7 million participants, the majority failed to achieve any significant gain. Less than 40 percent of those pursing literacy gains or English language skills advanced even one educational level.[25] Only 45 percent of those pursuing a diploma or GED were successful and only 45,000 of the 2.6 million participants transitioned to any kind of postsecondary education. The majority of participants in federally supported adult basic education are not even in the active labor market.[26]

Most adult education providers have weak linkages at best to employers or to postsecondary education. Mostly part-time instructors staff the adult education programs; few instructors have credentials in adult education and fewer still have training in workplace basic skill programs. Not surprisingly, most employers know little about these providers or what help they may provide.

The stereotype of adult basic education and ESL courses conjures up the image of adults, tired from a full day of hard work, meeting in stark classrooms in an otherwise empty primary or secondary school, and being led through skill drills by equally tired teachers. Sadly, this negative stereotype is uncomfortably close to reality. Of course, there are many shining examples of adult basic education that do not come close to this negative stereotype. But there is a big gap between best practice and common practice.

Workforce Development

The Workforce Investment Act of 1998 guides federal workforce investments, including those for job training, adult literacy, and vocational rehabilitation. In addition to other major provisions that establish a system of state and local planning, provide for universal access to employment and career development services, and facilitate intensive services (assessment, job readiness, case management) to dislocated and disadvantaged youth and adults, the Workforce Investment Act provides training for eligible individuals by certified education/training providers through the use of Individual Training Account, or ITA vouch-

25 The US Department of Education defines six literacy levels ranging from *beginning literacy to high advanced*.

26 This information is compiled from the U.S. Department of Education's Office of Vocational and Adult Education (OVAE) annual reports to the Congress on State Performance under the Adult Education and Family Literacy Act.

ers. States decide who will be eligible for these ITAs. The Workforce Development Act requires that low income and public assistance recipients be given priority for service but states have broad flexibility to set priorities or to allow local boards to set priorities.

Due to the decentralized administration of the Act, there is little information available on training activities and especially on training outcomes. A 2005 report by the Government Accountability Office examining data from 2003 concluded that about $929 million was expended on training by local boards for training programs enrolling about 416,000 individuals, 323,000 of those in occupation programs. There were many different kinds of providers used. Community colleges and secondary school vocational centers were frequent providers, but many boards also authorized training by community-based organizations, private training firms, and proprietary schools.

According to the GAO, it was not possible to determine how many individuals received academic degree or certificates or industry-recognized certifications. Based on the kinds of training provided and the time limits frequently imposed by state and local boards, it seems unlikely that more than a quarter or a third of the participants gained a degree or a nationally portable credential.[27]

Training for Public Assistance Recipients

The federal Temporary Assistance to Needy Families program assists states to move people off public assistance and into work. TANF requires that each state engage at least 50 percent of assistance recipients in "work activities." The legislation provides that vocational training is an allowable work activity, but limits training to 12 months and forbids states from allowing more than 30 percent of the work participation requirements to be met by individuals in vocational training or attending high school.[28]

States may define "vocational education" to include academic programs offered at postsecondary institutions, but the 12-month limitation usually precludes enrollment in degree programs, even at the associate level. Therefore, most TANF recipients in postsecondary programs are participating in one-semester or two-semester programs, at best resulting in a short-term certificate rather than a degree.

Reliable data about the number of adults participating under TANF in postsecondary vocational training or degree-oriented programs is not readily available. Analysis of TANF spending indicates that combined state and federal funding for education and training activities was about $494 million in 2003, the most recent year for which data is available.[29]

27 United States General Accounting Office, Workforce Investment Act; Issues Related to Allocation Formulas for Youth, Adults, and Dislocated Workers, April 2003.

28 Under TANF, states must match federal funds with at least 75 percent of what they had been spending for welfare when TANF was enacted in 1996. This required state expenditure is known as the state's Maintenance of Effort (MOE). The TANF law permits states to spend from their MOE for education and training without being limited to the 30 percent of work participation requirement or the 12-month length of program requirement. States are also permitted to reduce their 50 percent work participation requirements by the percentage that they have reduced their welfare caseload since TANF was enacted in 1996. A few states use their MOE funds to effectively waive that 12-month limit for some individuals, enabling them to complete a degree.

29 Center for Law and Social Policy, *Strategies for Increasing Participation in TANF Education and Training Activities*, April 2006.

Recommendations

As this analysis makes clear, America cannot simply grow its way out of this problem of undereducated adult workers. The limited adult education policies we have had in effect over the past several decades have rested on the expectation that the education attainment and productivity of the workforce would rise almost inexorably as huge numbers of more educated young labor market entrants crowded out less educated older workers. That worked for a long time, but it is not going to work anymore.

Now we need new strategies based in the reality of current labor market demographics and aimed at lifting the attainment of adults already in the workforce. These new strategies will not come with zero costs, but if we are smart about designing them and put the incentives in the right place, they are affordable.

There are a few basic principles shaping effective policy response. First, we need to develop thoughtfully segmented responses, avoiding a one-size-fits-all or "silver bullet" approach. The United States clearly faces a series of different problems in educating different segments of the adult workforce. We need to be thoughtful in carefully targeting resources and policies to these segments.

Second, we need to focus on building and shaping demand for adult education—both on the part of less-educated workers and their employers. Simply putting more resources into the hands of education and training providers is not likely to be very effective. We need a demand–side strategy that first asks under-prepared individuals and their employers to step up to greater responsibility in investing in adult education, and then provides direct incentives and assistance to those who do.

Third, the federal government and the states need to work together on this. The federal government is not the major player in postsecondary education or in adult basic education. Federal policies can have a very significant impact on changing instructional practices and delivery systems, but only by working with and through the states.

Finally, we need to encourage far greater emphasis on new and improved education technology—to build and articulate demand, to deliver instruction, to measure progress, and to test for competency. Higher education and adult basic education have been very slow to deploy technology, especially in ways that can overcome the problems of time and flexibility that limit working adults access to good education.

These principles lead us to a set of five inter-related and inter-dependent recommendations (see page 2 for summary).

1. **We need new incentives for employers to invest in the credentialed and portable education of their employees, both for basic skills and postsecondary skills.**

This paper proposes a new federal initiative to stimulate employer investment in the education of adult workers—an initiative that would encourage more companies to follow the lead of United Technologies Corp (see sidebar, page 25). Specifically, employers should receive a credit against their federal tax liability amounting to a percentage of their investment in basic education and language training leading to a national recognized certificate of proficiency, and in the credentialed postsecondary education of under-prepared adult workers.

Eligibility for the credit would be limited to employers who establish a "*qualified educational assistance program*" under Section 127 of the Internal Revenue Code (discussed in more detail below). The basis for the tax credit would be limited to expenditures of up to a defined level (we suggest $5,250 per year per employee because that is the cap imposed by Section 127) for tuition, fees, books, and supplies for employees enrolled in for-credit programs leading to a sub-baccalaureate degree or technical certificate from a federally-approved postsecondary institutions, or in basic education and English language training programs leading to some national recognized certificate of proficiency.

For postsecondary programs, the allowable expenditures could be in the form of direct payments to educational institutions on behalf of employees or reimbursement (full or partial) to employees who have initially incurred these eligible costs. For basic skill or language training programs, the expenditures might take the form of payments to a third-party provider or direct training costs incurred by the employer.

It will be important to structure this credit to assure that the employer has enough "skin in the game" to monitor carefully the selection and performance of education and training providers. The amount of the credit per employee should be limited to 50 percent of qualified expenditures, therefore not exceeding $2,620 per employee if the eligible expenditures were capped at the Section 127 level of $5,250 per employee. The total annual amount of tax credit for any employer might also be capped or otherwise limited to a percentage of total tax liability.

Further, the credit ought not to be structured as a "windfall" that rewards current investment, but rather as a modest inducement to new investment. For example, the tax credit might be limited to the annual increment of new spending for eligible employee education costs over a base period of, say, the three immediately prior years. That base could be readjusted periodically.

These would be highly targeted tax credits, aimed at encouraging certain kinds of education and training for certain types of individuals. The policies advocated here would be aimed at encouraging general and transferable skills development that may be in the long-term interest of most employers but are not always so clearly rewarded by the market. This paper specifically ***does not***

United Technologies Corp.'s Employee Scholars Program

A model for company-based lifelong learning

More than ten years ago, United Technologies Corp. established what it now calls its Employee Scholar Program, a unique corporate effort to provide lifelong learning opportunities to its employees that could serve as a model for other employers.

Under the Employee Scholar Program, UTC pays 100 percent of the costs for employees, both in the Unites States and internationally, who go back to school. That includes registration, tuition, fees, and books—all paid up front. Employees can enroll in classes and obtain a degree in any field, whether or not it is related to their jobs. Students receive up to half of their classroom time as paid time off for studying, up to three hours per week.

UTC further rewards its employee scholars when they graduate, providing very direct incentives for completion. Employees who attain a bachelor's or graduate degree are awarded the number of shares of UTC common stock equal to $10,000. Those who attain an associate's degree will be awarded the number of shares of UTC common stock equal to $5,000, and they will be awarded the additional number of shares of UTC common stock equal to $5,000 if they go on to complete their bachelor's degree.

Employees who are laid off can utilize the program for a full year afterward, and workers whose UTC jobs move more than 50 miles away from headquarters are eligible for four years. International employees receive a proportional stock award based on their pay.

Since its inception in 1996, the company has invested over $600 million in educating its employees and 17,360 employees have earned a total of 20,830 degrees and $159 million in UTC stock awards. Bill Bucknall, senior vice president of human resources and organization at UTC told *HR Magazine* in 2006 that: "The program makes economic sense to the company in terms of recruitment, retention, promotion and assistance to employees in case of separation. If it's not the most appreciated benefit, but it's certainly in the top two or three. We don't specifically look at Return on Investment [for the employee scholar program] but we look at our performance as a company over time."

United Technologies makes this investment in employee learning without the incentive of tax credits. It finds its economic return in employee recruitment, retention and productivity. Some other companies make similar investments, although few at this impressive level of commitment. If the partial tax credits we propose would begin to help this *best practice* become more *common practice*, it would have enormous impact through the economy.

propose a tax credit that would subsidize expenses for company-specific or job-specific training activities. It is not the necessary or proper role of government to subsidize the employee training that serves primarily the interest of individual employers and does not result in credentials portable to other employers. Such company-specific skill investments can be justified wholly on the basis of their internal rate of return to the company; the market offers adequate opportunity to reward companies for increasing the specific skills of their employees.

Second, there is little justification for providing tax credits for employer spending on the post-baccalaureate education on their employees. The tax credit should be available only for employer spending associated with less-prepared employees. In fact, the tax credit should be limited to

education assistance for employees seeking their first undergraduate degree or alternatively to those seeking a less than bachelor's degree.

Thirdly, this tax credit should apply only to costs associated with programs that are intended to result in an academic credential (degree or certificate) or to prepare an employee for a nationally portable, industry-recognized certification. While this latter requirement might require some effort to establish a framework for determining what constitutes "nationally portable" or "industry-recognized," it might also kindle greater employer participation in clarifying national certifications and encourage the more rapid emergence of employer standards, industry by industry, for establishing these certifications.

Finally, it will important to develop a clear national standard for adults seeking basic skill proficiency. The absence of a nationally accepted and therefore nationally portable certification of basic skills has been a major weakness of adult basic education. The GED does not warrant competency in all the basic skills held important by most employers, and is anyway designed to provide the equivalency of a high school education that should have been attained prior to adulthood. Fortunately, in recent years, a partnership of state workforce boards and non-profit organizations has worked to develop a National Work Readiness Credential, in consultation with the US Chamber of Commerce, to meet this need. Employer efforts to promote English language acquisition also will require agreed-on standards and certification of proficiency.

As suggested above, the basic framework for this tax-credit strategy is already available through the education assistance plan procedures in Section 127 of the tax code. Section 127 provides that employers may provide up to $5,250 per year to their employees in tax-free reimbursement for tuition, books, fees, supplies, and equipment for job or non-job related education as part of a "qualified educational assistance program." Benefits received by an employee from the employer up to that limit may be excluded from income as reported by the employee.

In order for the plan to be *qualified*, a number of requirements must be met:

- The benefit must be offered on a non-discriminatory basis that does not favor highly compensated employees
- Reasonable notification of the availability and terms of the program must be provided to eligible employees
- There must be a separate, written plan for the program
- The program may only be for the benefit of employees (including retired, disabled or laid-off employees) and not for the benefit of an employee's spouse or children
- The plan cannot offer the employee a choice of taxable income or educational assistance.

Were it not for Section 127, the tax code otherwise provides that money paid or expenses incurred by the employer for education or training provided to an employee (or independent contractor) may be excluded from the employees gross income *only if* it maintains or improves skills required of the individual in his/her employment, meeting the express requirements of the individual's employer or applicable law or regulations, and is imposed as a condition to contin-

ued retention of employment, status of employment, or rate of compensation Section 127 thus allows for non-taxable employer assistance for general skill development not necessarily associated with the worker's current job and not required as a condition of employment.

In 2002, in a move to "reduce paperwork", the Internal Revenue Service indefinitely suspended any requirement to file an annual report about Section 127 education plans and there is now no basis for estimating the impact of these exclusions on education expenditures. There is no "official count" of how many employers have these plans, how many employees are covered, or how many employees participate. Various benefit surveys, however, suggest somewhere between two-thirds and three-fourths of employers offer reimbursement for education: a percentage that seems to have changed very little in the past five years. These same benefit surveys also reveal that most employees do not take advantage of the programs. Most companies report a take-up rate of less than 15 percent.[30]

Making some of these expenditures the basis for a tax credit suggests the need to re-institute some streamlined Section 127 reporting requirements, at least for those employers claiming the credit. In addition, it would be necessary (and seems otherwise appropriate) to add basic skills and English language training as qualified expenditures. Finally, it seems important to assure that the credit would apply to employer investments in learning technology as well as to traditional books and supplies.

Some employers already invest in the basic education or credentialed postsecondary education of their workers and their examples and their results should inspire others. Of course, even with this incentive, many employers might not make these investments and we would strongly oppose any mandate. But with this incentive and with strong federal leadership, many more employers would begin to make these human capital investments—enough to provide clear labor market signals and incentives for workers who want skills to find employers that are willing to help.

2. We need stronger incentives for working adults to invest in their own education.

We need a significant expansion of federal tax incentives to encourage individuals to invest in their own basic skills and postsecondary education. Specifically, we recommend that the effective amount of the Lifetime Learning Tax Credit be increased significantly to offer greater rewards to individual investment and we recommend it be made fully refundable for workers at lower earning levels who otherwise would not incur the tax liability to use the credit.

As we have seen, the current structure of the LLTC allocates most of the benefit to full-time students who attend higher cost institutions (and therefore spending close to the $10,000 limit) and who have used up their eligibility for Hope. The LLTC minimally benefits students who attend lower cost institutions, such as community colleges, and who are enrolled less than

30 Most employers who provide assistance offer to *reimburse* employees who first must spend their own money and then show their employers evidence of satisfactory completion. Generally, this form of tuition reimbursement reaches very few workers, especially at lower levels of earnings and lower levels of prior educational attainment. Low-wage workers with no previous postsecondary attainment often can't afford or don't think they can afford the up-front cost of enrollment. Adults with no previous postsecondary experience frequently have very little confidence in their academic skills. Many remember not doing so well in high school and they worry that they won't succeed in college and may not be reimbursed by their employers. Moreover, working adults typically have little information about the connection between good jobs and a good education and about where and how to get started on postsecondary education. They are not very good at navigating through the complexities of higher education and, in the workplace, there is no one to turn to for help.

full time, as is demonstrably the case for many non-traditional students, especially working adults. While this important difference may have seemed reasonable ten years ago when public policy objectives were focused chiefly on reducing the burden of college education on the middle-income parents of traditional postsecondary students, it no longer is appropriate at a time when we need to increase incentives for working adults to pursue postsecondary credentials.

We need to increase the percentage of qualified postsecondary educational expenses allowed under the Lifetime Learning Tax Credit from the current 20 percent of the first $10,000 spent on qualified expenses (tuition and fees) to 50 percent, capping the credit at $2,000. This change would increase the benefit to students attending lower-cost institutions and to those attending less than half time without harming current beneficiaries of the program, including those who already get the maximum $2,000 credit. Simultaneously, the Hope Scholarship credit should be increased to 100 percent of the first $1,000 and 50 percent of the next $2,000 in order to avoid driving the astute tax filer away from Hope to the LLTC. This fundamental change in the structure of the LLTC would be especially important for working adult students who rarely benefit from traditional forms of federal or state student financial aid such as Pell Grants and Stafford and direct student loans.

Currently the LLTC limits qualified expenses to tuition and fees. The definition of "qualified expenses" must be expanded to include not only the direct costs of attending school—tuition, fees, and room and board—but also indirect costs, such as books, supplies, equipment, transportation, child care, and others as currently defined by the U.S. Department of Education in Title IV student aid formulas. Importantly, investments in learning technology such as computers and other devices should also be included as a qualified expense.

We need an even more generous credit for individual taxpayer spending on adult basic education and ESL instruction. Specifically, a 100 percent credit on the first $1,000 of qualified expenses and 50 percent on the next $1,000 is in order. As noted above, the LLTC in its current form can be used theoretically for basic education and ESL, yet because these activities are not now eligible for Higher Education Act-eligible loan or grant support (nor are they covered by most state FTE formulas), few colleges offer them.[31]

The more generous tax credit would certainly be an incentive for colleges to develop such programs. As they do, the Department of Education should establish rigorous outcome expectations and accountability metrics that would support efficient and effective programs linked closely with employer expectations and with on-going, credentialed-focused, postsecondary instruction. The Education department should also carefully encourage the entry of other high quality adult basic education and ESL providers into this educational marketplace.

We also need to make making both the Hope Scholarship and Lifetime Learning Tax Credits refundable. Both tax credits can be modified to allow low-income working adult students to receive their full credit, including the portion above any tax liability they have. Because the

31 To be clear, we do not recommend that ABE and ESL instruction be declared eligible activities for HEA grants and loans. We are recommending only that expenses for ABE and ESL, when provided by DOE approved postsecondary institutions and other DOE approved providers, be eligible for LLTC credits and for employer tax credits.

education tax credits in their current form simply reduce filers' tax liability, those working adult students who do not now owe taxes do not benefit from the credits.

At a minimum, a married tax payer in 2001 with a family of four must have had at least $19,200 in adjusted gross income to owe taxes, and often, this amount is closer to $22,000 after families qualify for child tax credits and dependent care tax credits. At this income level, families also would qualify for the Earned Income Tax Credit, wiping out even more of their tax liability. We believe that especially these low-income working adults need stronger incentive to invest in their education.

As with the employer incentives outlined above, we recognize that many working adults will not act on these inducements. They will not see even these more generous and more effective tax credits as significant enough to justify the very hard work associated with college enrollment. But many will, and as more working adults find success in postsecondary study—and as public policy signals its importance—more will be influenced to try.

3. We need better support and assistance for state governments to help their public postsecondary institutions develop educational offerings and degree programs that work for working adults.

We need a time-limited federal program administered through the Higher Education Act to help states encourage their postsecondary institutions to develop new education-delivery strategies for working adults supported by remediation, financing, student services, curricula and program development, accreditation, credentialing, and faculty development—all of which together would promote access and success for working adults seeking post-secondary credentials. This paper proposes modest, formula-based grants and incentive funding to states that choose to work with their colleges and universities to make these changes.

The problems that discourage success for working adults seeking post-secondary credentials go very deep into the governance and delivery of higher education. Solutions must come through reforms in how the states manage their higher education responsibilities and in educational practices not favorable to working adults that are deeply embedded in program structures and delivery systems.

If they are successfully to serve working adults, colleges must improve their ability to remediate rusty or poorly developed English and math skills. While selective admission policies at four-year colleges tend to screen out students who need significant remediation, the need for remediation is very high and growing at "open enrollment" community colleges.

In 2002, for example, the Education Commission of the States reported the results of a state survey about postsecondary remediation. Of thirty responding states, half reported that over 50 percent of entering students in their public community colleges need remediation. The ECS survey found that remediation needs are on the increase, not just because more students need it but also because they need more of it.[32]

In most community colleges, incoming students who are unable to offer evidence of well-developed basic skills, such as college-entry required SAT or ACT scores, are required to take placement tests.

32 Education Commission of the States, *State Policies on Community College Remedial Education: Findings from a National Survey*, 2002.

Those scoring below nationally normed cut-off scores for reading, writing, and math are required to complete semester-based remediation courses prior to enrolling in program courses for which prerequisite skills levels have been established. All the development level courses are for-credit courses; aid-eligible students who have a high school diploma or a GED and who enroll in these courses qualify for federal and state assistance. However, the courses usually do not count toward completion of the degree or certificate requirements of the program. Courses that effectively seek to develop skills commonly seen as pre-secondary are not eligible for federal aid and seldom are eligible for state aid.

Most colleges do concede they are not very good at providing remediation. A very large percentage of students do not complete their remediation requirements and this is certainly the greatest source of attrition among working adults. Even when remediation is a just matter of completing just a one-semester course to brush on rusty math or writing skills, it reduces persistence. When students are placed in more than one remediation course, their persistence plummets.

Research has revealed that students who need multiple levels of remedial courses in two or more subject areas are far less likely to complete college than those who need remediation in only one area.[33] One 1998 study found that, of students who need to take nine or more credit hours in remedial courses, only about 25 percent completed all of their remedial courses and only about 4 percent completed a degree within five years of initial enrollment.[34] While this research confirms the obvious—poorly prepared students have less chance of completing college than well-prepared students—it also demonstrates that current postsecondary remediation practices are not very effective.[35]

Working adults not needing remediation, or those few who successfully complete it, face many other institutional obstacles to gaining their completion credential. Postsecondary institutions tend to focus their instruction and delivery strategies on very traditional students—recent high school graduates with no attachment to the labor force and no major constraints on their capacity to indulge campus-based, course-oriented educational delivery systems. Even at most community colleges, most programs and courses are geared for the traditional postsecondary students. They not offered in ways that meet the scheduling or timing needs of working adults who must fit college around the requirements of full-time jobs (and, often, dependent care responsibilities).

Students typically are expected to take several unconnected courses over a 15-to-16 week semester. Each course requiring two or even three campus visits per week. Access to student services, such as registration, financial aid, career counseling, and even meeting with instructors typically assume that the students have few constraints on their daytime, weekday schedule.

Too many things change in the lives of working adult students for that slow pace to permit success. Changes in jobs or job schedules, child care arrangements, transportation arrangement and other life changes intervene. Working adult students

33 Adelman, C. (1999, June). *Answers in the tool box: Academic intensity, attendance patterns, and bachelor's degree attainment.* Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

34 Grubb, N. (1998, January). *From black box to Pandora's box: Evaluating remedial/developmental education.* Paper presented at the Conference on Replacing Remediation in Higher Education, Stanford University, Palo Alto, CA

35 Boylan, H. R. (2002). *What works in remediation: A guide to research-based practices in remedial education.* Boone, N.C.: Continuous Quality Improvement Network with the National Center for Developmental Education.

The College for Working Adults

Ivy Tech Community College of Indiana pioneers new lifelong learning strategies

Ivy Tech Community College of Indiana, a single statewide institution with 23 campuses and over 70,000 degree-seeking students, boasts a tremendous working model for lifelong learning—its new College for Working Adults. CWA, launched by Ivy Tech in August 2007, is a significant effort to increase the college's completion and graduation rates.

CWA incorporates a number of innovative education-delivery features designed to promote a clear pathway to a degree and credentials, initially for nine of the college's most highly enrolled programs and ultimately for all. By attending classes no more than twice a week and taking only two courses at a time, CWA will enable working students to complete an Associate in Applied Science degree or Associate in Science degree in under 24 months. Marketing and enrollments in CWA are well underway and early response from faculty, staff and, most of all, students has been remarkably positive. Key CWA features include:

- **Tightly defined course sequence.** Students enrolling in CWA programs will know exactly the courses they need to meet degree requirements. There are no student electives in CWA course sequences; faculty designed the sequences based on knowledge required for the degree and needed in local labor markets.

- **Compressed class formats.** Courses in CWA will be offered in eight-week sessions integrating classroom and non-classroom learning in "technology-enhanced" formats. Faculty members identified the portion of the content that needs classroom interaction between student and instructor and the portion that can be delivered through learning technologies such as online presentation.

- **Consistent class schedules.** Courses in the sequence will be consistently scheduled in each region so that students will come to campus at the same time on the same days for the entire sequence of courses. Students can thus anticipate their schedules for the entire length of their programs and, with their employers, plan accordingly.

- **Cohort-based programs.** All CWA programs will enroll students into cohort-based "learning communities," which will stay together for the complete sequence of courses. This learning community approach promises to help students cope more effectively with the intensive program and to encourage retention.

- **Enrollment and registration for degrees and educational outcomes.** CWA programs will focus on stressing the complete program as leading to a degree. Students will be able to formally register for an entire program of courses leading directly to the degree.

- **Coordinated Support Services.** The program redesign in CWA incorporates a customer-focused set of student services that will facilitate student engagement and convenience. This new program involves all areas of student support services for a consistent, student-focused set of services in: bookstores, financial aid, admissions, and registration.

- **Remediation Strategies.** Part of CWA's challenge is to help develop effective (and time and cost efficient) ways of helping adult students who may need some remediation of their math and English skills to be successful in the CWA program sequence. Some students will enter the program only on a "probationary' status while they draw on intensive remediation services to quickly boost these skills to college-ready levels.

- **Consistent branding across the state.** CWA is being promoted across the state as a college-wide product with a single name, target audience, and message for working adults. CWA preserves the delivery of education and regional ownership of the program but should have the same look and feel everywhere.

too frequently are forced to drop out, or they become discouraged with their slow pace, or they become disconnected from their education. Few complete.

There are several colleges, some four-year schools as well as many two-year schools, which have worked hard to develop programs that work well for working adults and are affordable. They offer organized, credentialed programs that generally require one or two years of full time study in shorter modules, each with distinct credentials that can be "stacked" together over time into more conventional degrees and certificates. These schools are making more extensive use of career ladders approaches in high-growth occupations that enable students to earn basic, industry-recognized certification quickly, gaining entry to higher wage occupations and then continuing training toward degrees and more advanced credentials (see sidebar, page 31, on the College for Working Adults at Ivy Tech).

Program such as these offer open-entry/open-exit classes that allow students to progress at their own pace, classes that meet on weekends, and course offerings that combine distance-learning and on-campus support. Some colleges have created short-term intensive programs with curricula and scheduling formats that can better accommodate the time limitations of working adults. Private and proprietary institutions that are specifically seeking to attract the adult market have led the way in many of these reforms. Regrettably, however, these are exceptions—they are best practice, not common practice. In terms of cost, programs structure, and delivery methods, most institutions of higher education institutions are not sufficiently accessible to working adults and they do not promote success.

The federal initiative needed to help states help their institutions to develop more adult-friendly practices would be time-limited, with an authorization of no more than four or five years. States would be invited to compete for two-year planning grants that would be followed by two or three more years of implementation grants. Grants would be made only to about 20 to 25 states prepared up front to make the strongest commitment to the post-secondary education of working adults. The federal grants would be annually renewable, subject to performance, rather than allocated in one large grant to the participating states.

In addition, there would be monitoring, assessment, and enforcement mechanisms to keep states on track of the plans they develop. We would recommend that there be a reserve for additional allocations to high performance states, and strong emphasis on disseminating the lessons learned. There also might be some resources set aside for competitively awarded research grants and some demonstration grants directly to colleges and universities.

Use of the federal grants would vary from state to state depending on their particular diagnosis of problems and opportunities. Some states might place a special emphasis on developing new financial aid instruments aimed at working adults. Others might choose to focus their efforts around the development of new programs and credentials that fit the scheduling barriers facing many working adults. Some states might look chiefly at their community colleges to implement this strategy while others might ask their four-year state colleges and land grant universities to play a major role. This diversity of approach would provide a rich learning environment and state teams working on these issues could

be brought together regularly to exchange information and experience.

Not all the states will be equally interested in this program. Some more rapidly growing states with a large percentage of young people in their population will not be as quickly sensitive to the importance of adult education as will states with an older workforce. In some states, the community colleges see themselves as feeder systems for the four-year colleges and universities and may not be very interested in developing more adult friendly programs. But our strategy does not demand that all states, much less all institutions, participate. Our proposal asks only that we invest in those that are committed to helping working adults improve their skills and education.

This new legislation should avoid dictating prescriptions for success and instead support flexible responses by the states. States should be encouraged to examine a wide range of problems and solutions. The first year planning grant will be an especially important device to encourage the states to look widely at how their system of post-secondary education could better meet the needs of working adults.

The objective of this program is not simply getting adults to pursue continuing studies while they work; they are doing that in huge numbers, especially those that already have some post-secondary attainment. Rather, the challenge here is to help significantly larger numbers of working adults whose highest level of education attainment currently is a high school degree to gain recognized post-secondary credentials. The objective is to get them into and through programs leading to a degree, certificate, or other credential that can help them improve their standard of living and help the U.S. economy toward higher levels of productivity.

This new federal-state program would be both good economics and good politics. It does not require a large or open-ended financial commitment from the federal government. It would build a partnership with states and their institutions of higher education, some of which already see working adults as a huge new market segment. This strategy would find enthusiastic support from business groups as well as labor organizations. Facilitating the entry of adults to post-secondary education would send an important message to their children about the value of education and lifelong learning. As our economy continues to shift toward education and skills as the basis of competitive success, we cannot afford, economically or politically, to ignore the post-secondary educational needs and aspirations of millions of adults already in the work force.

4. We need to rethink and restart our whole approach to adult basic education and English language training, moving toward a more demand-driven, technology-based strategy.

We need a complete redesign of federal adult literacy strategy. It is time to acknowledge that current policies and programs simply are not working, at least not at anywhere near the scale of the problem. Building a new federal-state system of basic education for adults that starts from an economic perspective and builds on an employer-based definition of the basic skills is needed in the 21st century economy.

On that foundation, we can begin to build basic education and training systems that are workplace-based and employer-supported and that use effective learning technologies. Similarly, we need to develop workplace-based ESL

training that leans on effective technology and, because it meets workplace needs, receives employer support.

Employers define basic skills quite differently than traditional providers of adult basic education. Jobs in the modern economy certainly require the ability to read, write and do math. But from an employer perspective, basic skills also include the following:

- Communicating effectively in English
- Learning, understanding and applying information and analysis
- Thinking critically and acting logically to solve problems
- Using technology, tools, and information systems
- Working in teams, developing a positive attitude toward change, and demonstrating the willingness and ability to learn.

A partnership between the US Chamber of Commerce and the National Work Readiness Council comprised of state workforce boards in WA, FL, NY, NJ, the Rhode Island Economic Policy Council and JA Worldwide has developed a National Work Readiness Credential in response to this business need and employer definition of basic skills. According to the Chamber, the NWRC is based on a cross-industry standard, defined by experts from multiple business sectors, of what entry-level workers need to be able to do to be fully competent.

The Chamber reports that entry-level workers need a strong foundation of critical employability skills: the ability to cooperate with others, communicate orally in English as well as to read and write, solve problems, resolve conflicts, take responsibility, learn, and learn and adapt to change. This way of looking at basic skills makes enormous sense. And it makes sense to organize our national adult basic literacy efforts around this demand-side definition of basic skills.

Developing programs that are workplace-based—and with objectives that are defined by the realities of the workplace—does not mean that the design of this program should be turned over to employers. Nor does it mean that all program delivery has to be at the job site. But it does mean that the conventional definition of basic skills, literacy and numeracy, would be augmented by the inclusion of skills necessary for economic success in ways that make the development of these skills more relevant to the real needs of employers and that encourage employers to invest their own resources.

Similar efforts must be taken to boost English language proficiency. Obviously, a workplace-centered ESL program is not sufficient to help dependent members of non-English speaking families develop their language skills. But getting the working members of immigrant families involved in language training at the workplace would be an enormously important lever for wider family participation in language training. This approach to basic education and ESL is driven by the needs of the workplace and the economy, and holds the promise to reduce the social stigma widely associated with basic education for adults.

We also need to establish an Innovation Fund to encourage private-sector investment in new technologies and instructional designs for basic skills development

and ESL training that can be delivered through a variety of venues: worksites certainly, but also public libraries, community centers, and community colleges. The Fund could make early stage venture capital investments in promising technologies and new instructional and assessment methods for prototype development and proof-of-concept demonstration. The Fund could also co-invest in companies that are getting ready to take their technologies and methods to market in order to attract venture capital investment.

This approach to adult basic education and ESL training aims to shift a major share of cost of instruction to employers and to low-skill workers themselves, with major subsidies provided through tax credits, fully refundable to low-income individuals. The employer tax credit we propose would offset up to 50 percent of employers investment in setting up and delivering instructional programs at and away from the workplace. The expanded LLTC we recommend effectively would reimburse 100 percent of the first $1,000 of individual investment and 50 percent of the next $1,000.

This shifts from the supply side strategies that simply have not worked to a demand-side approach that organizes a market, reduces the stigma, eliminates the administrative costs associated with provider-based systems, and subsidizes direct investment. This is a far more efficient and effective way of combating low literacy and limited language proficiency.

5. We need to step up our national efforts to explain to working adults and their employers their shared interest in more and better education and help them learn how to plan, finance, and complete that education.

Perhaps the most important thing the federal government can do to spur new investment in education for adult workers is simply to make it clear why we care. Most working adults without postsecondary credentials or with sharply limited basic skills have already made a decision that college or formal vocational preparation are not for them, either because they don't think they can afford it or because they don't think they could be successful.

For some it will be a hard sell, requiring convincing information, convincingly packaged and presented. It also will require the cooperation of their employers. Fortunately, there is ample evidence from national and state business organizations that employers share this perspective and are ready to help.

It is also important to keep in mind that not all working adults will need postsecondary credentials. We don't have to design a program that is successful only if it achieves universal participation. There are 62 million workers between the ages of 25 to 64 with no postsecondary credential. About 10 percent of them already are attempting to get a postsecondary credential. Convincing another 10 percent of those annually to attempt postsecondary study and helping assure that 60 percent to 75 percent of those complete a one or two-year program would have an enormous impact on overall education attainment and on economic growth.

An aggressive and targeted campaign aimed at lifting awareness of the importance of education for the adult workforce would do the trick. Like the Kentucky program cited above, the message of this new education program would center on the following key points:

- Education attainment matters greatly for the competitive success of individuals and companies and for national economic growth
- Limited basic skills and low English proficiency will continue to be a major handicap
- The state and federal governments are helping educational institutions build new educational pathways that work for working adults
- Tax incentives and other forms of assistance are available.

This would not be strictly a government marketing campaign. Private sector organizations (national business groups, organized labor, and national advertising associations) may be willing to share the leadership and the cost. The program would likely be more effective with that kind of involvement.

Estimating the Cost of These New Strategies

This paper has not attempted to provide a detailed set of recommendations that would permit a rigorous calculation of costs. Importantly, the recommendations focus chiefly on tax credit incentives rather than only on direct appropriations, which means that cost can be only a rough estimate. Still, it is feasible to make some assumptions that would at least permit a rough order of magnitude calculation.

Under optimistic assumptions, effective utilization of the employer tax credits as proposed would begin modestly and increase gradually over a five-year period to a level of no more than $4 billion to $5 billion annually. If, in a very robust national program with strong marketing efforts and well-developed educational provider systems, employers invested an average of $1,500 per participating employee per year for six million workers and received a full 50 percent credit for all these expenditures, the tax credits would amount to $4.5 billion. This would be a very successful program with an unusually high take-up rate.

Currently, it appears that LLTC accounts for about 40 percent of the $6 billion of education tax credits actually awarded in 2004. Increasing the LLTC credit from 20 percent to 50 percent (and capping it at $2,000) would not necessarily increase the credits awarded by the same percentage because many of the claimants would not be eligible for the full credit at this level and others would not have sufficient tax liability to use their credit. But if the increase were accompanied by refundability (for those eligible under the Earned Income Tax Credit), then it seems likely that the LLTC credits awarded would at least double.

Ideally, this increase in the amount of the credit and the addition of refundability for low-come adults plus the marketing campaign would generate a major increase in the take-up rate. Under these optimistic assumptions for program success, the LLTC credits could climb gradually from about 2.5 billion annually to $8 billion to $10 billion annually.

Therefore, the estimated "tax loss" consequence of these strategies is in the neighborhood of $10 billion to $12 billion annually, after about five years. This assumes a very successful marketing campaign that convinces thousands of employers and millions of adult workers

to step up to new investments in basic skills and postsecondary education.

New appropriations to support these strategies would be very modest. The five-year program of grants to those states that choose to work aggressively with their public institutions to create working adult-friendly programs and delivery systems would not require more than $1 billion over that five year period. These recommendations about overhauling the adult basic education system would replace today's $500 million-a-year program of grants to states with a similarly sized program that focuses on learning technology, instructional design, and market development. A marketing campaign along the lines proposed should not cost more than $250 million to $300 million over five years, and some of that cost should be borne by the private sector.

There is low risk associated with this set of strategies, but extraordinary up-side potential. To the extent that employers and individuals do not take up the challenge to invest in worker education, there will be little fiscal consequence. The more this program "works" the greater the tax revenue given up. If, however, this program works even modestly to lift the education attainment of current workers, then it will have a huge payoff in terms of increased personal earnings and national economic growth. In an era where increased education attainment has contributed from one-fifth to one-quarter of overall economic growth and at a time when we know that continued dependence on new labor force entrants will not produce higher attainment, there could be no smarter investment in human capital.

Conclusion

U.S. economic growth and productivity gains lean heavily on increases in educational attainment. Over the past forty years, extraordinary labor force growth and consistent gains in high school completion rates and college participation generated major increases in the educational attainment of the labor force, especially of workers in their prime working years. But as this paper demonstrated, all that has come to an end.

We can no longer rely on the prospect of more educated younger workers. There are not enough of them and their educational levels are slipping. If we don't adjust our policies to help working adults increase their educational attainment, we risk stalling out productivity gains and losing out in an ever more competitive world economy.

We are now doing poorly on all these issues—basic education for adults hampered by low literacy, English instruction for the non-language proficient, and access to postsecondary education for low-income working adults needing educational and occupational credentials for job advancement. But these are not intractable problems. We can see the solutions and we can afford gradually to step up to a higher level of federal government responsibility. We cannot afford to do nothing.

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About the Author

Brian Bosworth

Brian Bosworth is an Affiliated Scholar with CAP and the founder and president of FutureWorks, a private consulting and public policy research firm focused on postsecondary education and regional economic development. Before establishing FutureWorks in 1999, Mr. Bosworth's experience in economic and education policy included more than a decade of international development assistance work in Latin America and 12 years of executive leadership responsibility for state-based economic growth programs. He also worked as an independent consultant with several state and regional economic development groups.

FutureWorks' clients now include national and regional foundations, regional business and employer associations, state and local governments, and educational institutions, especially community colleges. In recent years, Mr. Bosworth has directed several projects involving the design of new approaches to adult education and workforce development. These projects typically have involved research, policy analysis and development, and implementation engagement with economic development practitioners and educators. FutureWorks continues to research and consult on regional economic development with particular focus on issues of equity and sustainable growth.

Brian Bosworth is based in Seattle, Washington.

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